AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Steel for mechanical components, wherein the composition thereof is, in percentages by weight:

- $0.19\% \leq C \leq 0.25\%$;
- $1.1\% \leq Mn \leq 1.5\%$;
- $0.8\% \leq Si \leq 1.2\%$;
- $0.01\% \leq S \leq 0.09\%$;
- trace levels $\leq P \leq 0.025\%$;
- trace levels $\leq Ni \leq 0.25\%$;
- $1\% \leq Cr \leq 1.4\%$;
- $0.10\% \leq Mo \leq 0.25\%$;
- trace levels $\leq Cu \leq 0.30\%$;
- $0.010\% \leq Al \leq 0.045\%$;
- $0.010\% \leq Nb \leq 0.045\%$;
- $0.0130\% \leq N \leq 0.0300\%$;
- optionally trace levels $\leq Bi \leq 0.10\%$ and/or trace levels $\leq Pb \leq 0.12\%$ and/or trace levels $\leq Te \leq 0.015\%$ and/or trace levels $\leq Se \leq 0.030\%$ and/or trace levels $\leq Ca \leq 0.0050\%$;

the balance being iron and impurities resulting from the production operation, the chemical composition being adjusted so that ~~the~~ mean values J_{3m}, J_{11m}, J_{15m} and J_{25m} for five Jominy tests are such that:

$$\alpha = |\, J_{11m} - J_{3m} \times 14/22 - J_{25m} \times 8/22 \,| \leq 2.5 \text{ HRC; and}$$

$$\beta = J_{3m} - J_{15m} \leq 9 \text{ HRC.}$$

2. (Original) Steel for mechanical components according to claim 1, wherein the composition thereof is adjusted so that

$$\beta = J_{3m} - J_{15m} \leq 8 \text{ HRC.}$$

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3. (Original) Steel for mechanical components according to claim 1, wherein the composition thereof is:

- $0.19\% \leq C \leq 0.25\%$;
- $1.2\% \leq Mn \leq 1.5\%$;
- $0.85\% \leq Si \leq 1.2\%$;
- $0.01\% \leq S \leq 0.09\%$;
- trace levels $\leq P \leq 0.025\%$;
- $0.08\% \leq Ni \leq 0.25\%$;
- $1.1\% \leq Cr \leq 1.4\%$;
- $0.10\% \leq Mo \leq 0.25\%$;
- $0.06\% \leq Cu \leq 0.30\%$;
- $0.010\% \leq Al \leq 0.045\%$;
- $0.015\% \leq Nb \leq 0.045\%$;
- $0.0130\% \leq N \leq 0.0300\%$;
- optionally trace levels $\leq Bi \leq 0.07\%$ and/or trace levels $\leq Pb \leq 0.12\%$ and/or

trace levels $\leq Te \leq 0.010\%$ and/or trace levels $\leq Se \leq 0.020\%$ and/or trace levels $\leq Ca \leq 0.045\%$, the balance being iron and impurities resulting from the production operation.

4. (Original) Steel for mechanical components according to claim 3, wherein the composition thereof is:

- $0.20\% \leq C \leq 0.25\%$;
- $1.21\% \leq Mn \leq 1.45\%$;
- $0.85\% \leq Si \leq 1.10\%$;
- $0.01\% \leq S \leq 0.08\%$;
- trace levels $\leq P \leq 0.020\%$;
- $0.08\% \leq Ni \leq 0.20\%$;
- $1.10\% \leq Cr \leq 1.40\%$;
- $0.11\% \leq Mo \leq 0.25\%$;
- $0.08\% \leq Cu \leq 0.30\%$;

- $0.010\% \leq Al \leq 0.035\%$;

- $0.025\% \leq Nb \leq 0.040\%$;

- $0.0130\% \leq N \leq 0.0220\%$;

- optionally trace levels $\leq Bi \leq 0.07\%$ and/or trace levels $\leq Pb \leq 0.12\%$ and/or trace levels $\leq Te \leq 0.010\%$ and/or trace levels $\leq Se \leq 0.020\%$ and/or trace levels $\leq Ca \leq 0.045\%$, the balance being iron and impurities resulting from the production operation.

5-8. (Cancelled)